

AMENDMENT

IN THE CLAIMS

Please amend claims 1-30 as follows:

Claims 1-15 (canceled)

Claim 16 (Currently Amended): A database reorganization system, comprising data records for holding data entries, each data record ~~contain~~ containing a primary key; and

primary blocks for storing data records in the order of the primary keys thereof; overflow blocks linked to the primary blocks[:]; wherein said database reorganization system further comprising:

a current location table and a new location table for containing in contiguous regions entries describing the addresses of the primary blocks;

a current location table reorganization pointer that indicates through which entry in the current location tables reorganization has completed;

a new location table reorganization pointer that indicates through which entry in the new location table reorganization has completed; and

a current location table final pointer that indicates the final position used by that said location table.

Claim 17 (Previously Presented): The database reorganization system of claim 16, wherein

the database recognition system is configured to sequentially write entries in the current location table to the new location table and, where any overflow block is present, to delink said overflow blocks, creating new entries corresponding to the primary blocks and adding the new entries to the new location table.

Claim 18 (Previously Amended): A method of reorganizing the database reorganization system of claim 16, comprising steps of:

upon receipt of a database reorganization command, creating a new location table in addition to the current location table;

sequentially writing entries in the current location table to the new location table; and

when an overflow blocks linked to a primary block is detected, delinking that overflow blocks, adding new entries to the new location table, and rendering the overflow blocks as new primary blocks.

Claim 19 (Previously Amended): A method of reorganizing the database reorganization system of claim 16, comprising steps of:

shifting before and after records in primary blocks and eliminating fragmentation when a storage rate in primary blocks falls outside a range of predetermined values; and

sequentially writing entries in the current location table to the new location table.

Claim 20 (Canceled)

Claim 21 (Previously Presented): A method of reorganizing the database reorganization system of claim 16, comprising steps of:

when retrieving a record with the primary key during reorganization, evaluating whether the target primary key with the value of is greater than or less than the primary key of the record contained in the primary block and the overflow blocks that the reorganization pointers is pointing to;

when the target primary key is evaluated to be greater than or equal to the primary key of the record stored in the block that the reorganization pointer is pointing to, using the current location table to retrieve the target record; and

when the target primary key is evaluated to be less than that primary key, using the new location table to retrieve the target record.

Claim 22 (Currently Amended): A database reorganization system, comprising:

data records for holding data containing primary keys and alternate keys;

alternate-key entries that hold data entries, each alternate-key entry comprises an alternate key and a primary key;

alternate-key blocks for containing the alternate-key entries[[:]], wherein said database reorganization system further comprising:

alternate-key overflow blocks linked to the alternate-key blocks;

a current alternate-key location table and new alternate-key location tables for containing alternate-key location table entries in contiguous regions;

a current alternate-key location table reorganization pointer that indicates a progress of reorganization of the alternate-key location table and alternate-key blocks for the current alternate-key location tables;

a new alternate-key location table reorganization pointer that indicates a progress of reorganization of the alternate-key location table and alternate-key blocks for the new alternate-key location table; and

an alternate-key final pointer that is provided to the current alternate-key location table to indicate the final position used by said alternate-key location table.

Claim 23 (Previously Presented): A method of reorganizing the database reorganization system of claim 22, comprising steps of:

sequentially writing entries in current alternate-key location tables to a new alternate-key location table and, where alternate-key overflow blocks exists,

delinking the alternate-key overflow blocks, creating new alternate-key location table entries corresponding to the alternate-key blocks, and

adding new alternate-key location table entries to a new alternate-key location table.

Claim 24 (Previously Presented): A method of reorganizing the database reorganization system of claim 22, comprising steps of:

upon receipt of a database reorganization command, creating a new alternate-key location table in addition to the current alternate-key location tables;

sequentially writing entries in the current alternate-key location table to the new

alternate-key location table; and,

when alternate-key overflow block linked to alternate-key block is detected, delinking that alternate-key overflow block, adding new alternate-key location table entries to new alternate-key location table and rendering these as new alternate-key blocks.

Claim 25 (Previously Presented): A method of reorganizing the database reorganization system of claim 22, comprising steps of:

shifting before and after records in the alternate-key blocks and eliminating fragmentation when the storage rate in the alternate-key blocks falls outside a range of the specified values; and

sequentially writing entries in the current alternate-key location table to new alternate-key location table.

Claim 26 (Previously Presented): A method of reorganizing the database reorganization systems of claims 22 comprising steps of:

when retrieving a record with the alternate key during reorganization, evaluating whether the target alternate key value is greater or less than the alternate key of the entry contained in the alternate-key block that said reorganization pointer is pointing to;

using the current alternate-key location table to retrieve the target entry when the target alternate key is evaluated by the comparative means to be greater than or qual to the alternate key of the entry stored in the alternate-key blocks that the reorganization pointer is pointing to; and

using the new alternate-key location table to retrieve the target entry when the

target alternate key is evaluated to be less than the alternate key.

Claims 27-30 (canceled)